

DERWENT-ACC-NO: 2000-306330  
DERWENT-WEEK: 200027  
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TITLE: Indicating status of vehicle braking system using  
combination of  
interconnected sensors and switches, with indication  
provided using red hazard  
triangular shaped lights on vehicle

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PATENT-ASSIGNEE: WEIR A W[WEIRI]

PRIORITY-DATA: 1998GB-0022597 (October 17, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
GB 2342712 A	April 19, 2000	N/A
008	B60Q 001/44	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
GB 2342712A	N/A	1998GB-0022597
October 17, 1998		

INT-CL (IPC): B60Q001/44

ABSTRACTED-PUB-NO: GB 2342712A

BASIC-ABSTRACT: NOVELTY - The method involves the use of  
indicator lights  
activated by a combination of interconnected sensors and  
switches which  
indicate the status of the braking system of a vehicle when  
viewed from the  
front, side or rear and complies with current traffic  
legislation. Indication  
is provided by a red hazard triangular shaped lights for  
side and front  
locations.

USE - The method is used to indicate the status of a  
vehicle braking system.

ADVANTAGE - Road safety is improved.

DESCRIPTION OF DRAWING(S) - The drawing shows a general arrangement of the indication method in use.

CHOSEN-DRAWING: Dwg.1/2

TITLE-TERMS:

INDICATE STATUS VEHICLE BRAKE SYSTEM COMBINATION  
INTERCONNECT SENSE SWITCH  
INDICATE RED HAZARD TRIANGLE SHAPE LIGHT VEHICLE

DERWENT-CLASS: Q16 X22 X26

EPI-CODES: X22-B02A; X26-D;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2000-229099

(12) **UK Patent Application** (19) **GB** (11) **2 342 712** (13) **A**

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(51) INT CL<sup>7</sup>  
**B60Q 1/44**

(52) UK CL (Edition R )  
**F4R RMP R376**  
**H2H HSV4 H32**

(56) Documents Cited  
**WO 97/01457 A1** **US 5444620 A** **US 5311412 A**  
**US 5258740 A** **US 4837554 A**  
**WPI Abstract Accession No. 97-320307 [30] &**  
**CN1105325A (Cai) 19.07.95**

(58) Field of Search  
**UK CL (Edition P ) F4R RMP**  
**INT CL<sup>6</sup> B60Q 1/26 1/32 1/44 1/50**  
**On-line: WPI**

(54) Abstract Title  
**Front, side and rear brake lights**

(57) A process typically comprising indicator lights activated by a combination of interconnected sensors, detectors and switches which indicates the status of the braking system of a vehicle when viewed from the front, side or rear and complies with current traffic legislation.

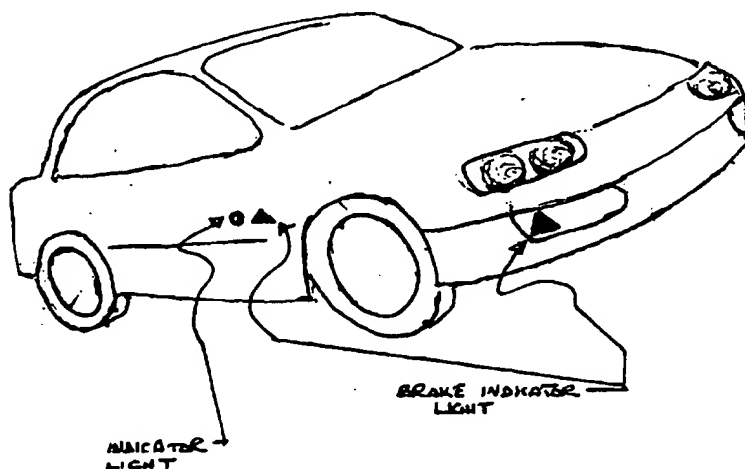


FIGURE 1

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**GB 2 342 712 A**

1/2

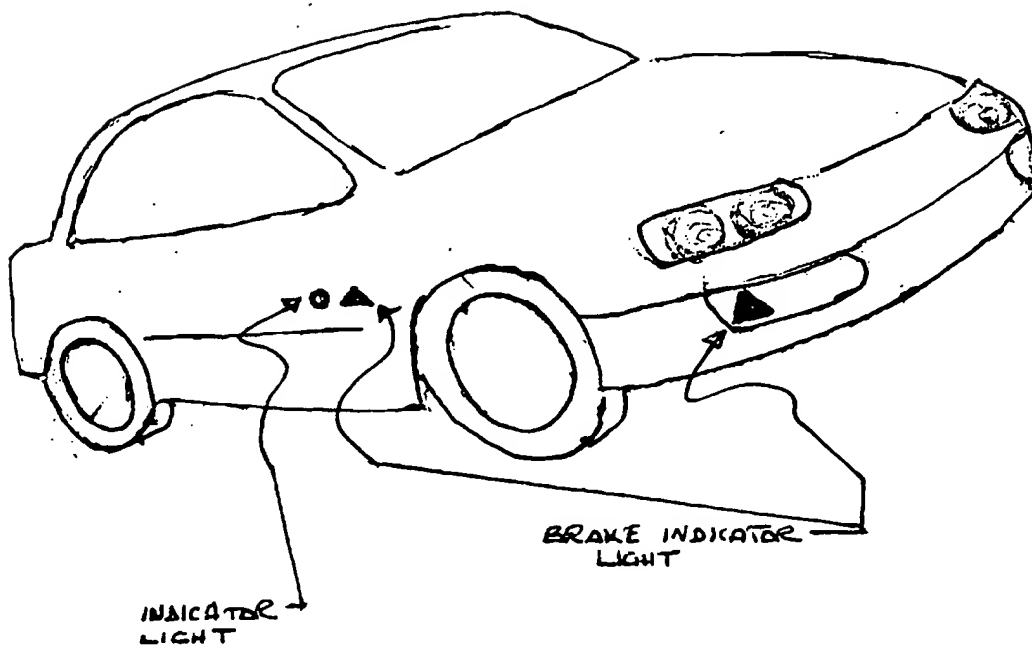
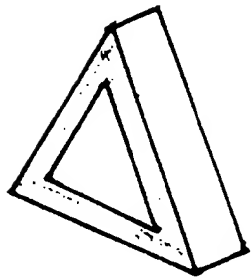


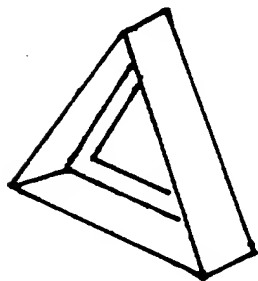
FIGURE 1

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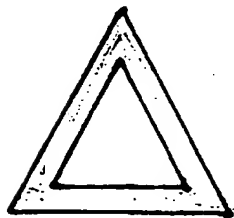
**STYLE 1**



**Front Perspective**

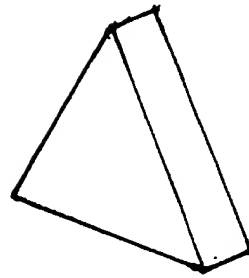


**Rear Perspective**

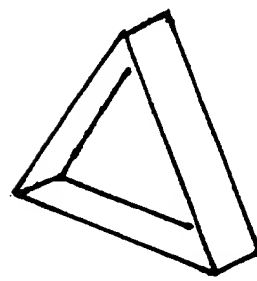


**Front View**

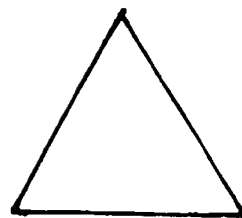
**STYLE 2**



**Front Perspective**



**Rear Perspective**



**Front View**

**FIGURE 2**

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**BRAKE STATUS LIGHTS INDICATION SYSTEM**

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This invention relates to an innovative enhancement and application to the process which indicates externally the status of the braking system of a vehicle.

The traditional breaking system typically is activated by application of the brake pedal or other device which allows an electrical or other suitable circuit to activate an indicator light located at the rear of the vehicle. Two such indicator lights are typically provided each being located near each side of the vehicle though additional indicators may be employed.

This process significantly improves the safety features of a vehicle by indicating the brake condition to pedestrians and vehicle users.

This invention comprises a combination of such rear light conventional systems with additional indicator lights which may be located on the front and side of the vehicle and optionally linked and activated via Conventional switches and detectors to all braking Mechanisms including any parking or similar Device employed when the vehicle is stationary.

The System comprises external indicator lights positioned Front, Side and Rear of the Vehicle, linked to standard and conventional switches and detectors and adopts the Universal Hazard Triangular shape for the Side and Front light indicators, as indicated in Figure 1 enclosed.

The proposal is for a Red coloured triangular display at the Front and Side but may also be a display of Red bordered triangular hazard traffic sign configuration back lit in any appropriate colour but typically in white or amber, as indicated in Figure 2 enclosed.

These indicator lights would typically be of similar size and positioned adjacent to directional indicator lights or be incorporated within a composite light unit.

The system would display all lights should the braking device, typically the foot brake pedal be applied and be deactivated on release of the mechanism. It would also operate similarly should any other brake device, typically a hand brake be applied. These systems would normally operate when the vehicle ignition system was operating.

The objective is to comply with though overcome current traffic legislation limitations on the form of vehicle front light display while indicating the status that provides greater safety for pedestrians and other road users.

Figure 1 : General Arrangement of location of indicator

Figure 2 : Indicates Style 1 & 2 for light covers



CLAIMS

1. A process which indicates the status of a vehicle  
Braking system
2. A process as claimed in 1 such that indication may be  
provided front, rear and side of the vehicle.
3. A process as claimed in 1 & 2 such that indication is  
via red hazard triangular shaped lights for side and  
front locations.
4. A process as claimed in 1,2 & 3 such that it complies  
with current traffic legislation.



Application No: GB 9822597.2  
Claims searched: 1-4

Examiner: Jeremy Philpott  
Date of search: 30 November 1998

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.P): F4R [RMP]

Int CI (Ed.6): B60Q: 1/26, 1/32, 1/44, 1/50

Other: On-line: WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X, Y	WO 97/01457 A1 (Edward B. Walton) whole document & Figures, note page 4 lines 1-8.	1 & 2 (X) 3 & 4 (Y)
X, Y	US 5444620 (A-Chien Yeh) whole document, note Figure 5.	1 (X) 3 (Y)
X, Y	US 5311412 (Chang-An Yang) whole document, note Figure 2.	1 (X) 3 (Y)
X, Y	US 5258740 (General Motors Corporation) whole document & Figures, note Figure 2 & column 2 lines 51-58.	1 & 2 (X) 3 & 4 (Y)
X, Y	US 4837554 (Anthony Gianforcaro) whole document & Figures, note the Figure & column 5 lines 58-62.	1 & 2 (X) 3 & 4 (Y)
X, Y	WPI Abstract Accession. No. 97-320307 [30]; abstract of CN 1105325 A (J. Cai) pub. 19-7-95	1 (X) 3 (Y)

X Document indicating lack of novelty or inventive step  
Y Document indicating lack of inventive step if combined with one or more other documents of same category.  
& Member of the same patent family

A Document indicating technological background and/or state of the art.  
P Document published on or after the declared priority date but before the filing date of this invention.  
E Patent document published on or after, but with priority date earlier than, the filing date of this application.